

Flight, July 24th, 1909.

Flight

First Aero Weekly in the World.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.

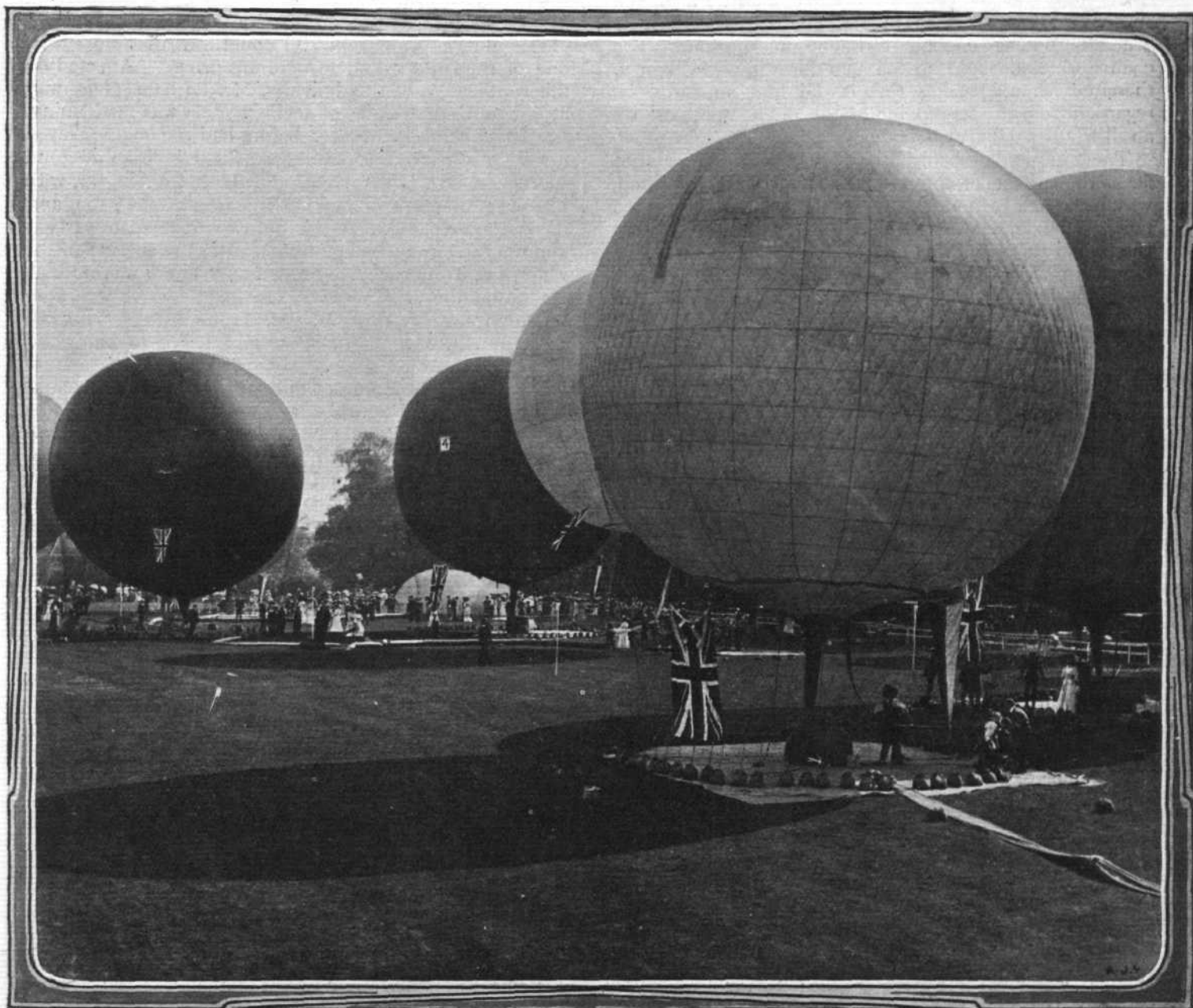
OFFICIAL ORGAN OF THE AERO CLUB OF THE UNITED KINGDOM.

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JULY 24TH, 1909.

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THE AERO CLUB BALLOON MEETING AT HURLINGHAM LAST SATURDAY.—General view of the inflated balloons on the ground getting ready for the "Hare-and-Hounds" Race, instituted by the Hon. C. S. Rolls, who acted as "hare" in the race in his tiny balloon, the "Imp." The winning "hound" was Mr. A. M. Singer, in his balloon "Satellite," which landed in the same field within about 12 yds. of the "Imp," at Carpenter's Arms, in Essex.

THE SPLENDID FAILURE.

AFTER more than a week of anxious waiting, the Channel flight has been attempted and lost. But what a splendid failure Mr. Latham made of his try. Everyone regrets that the precise task which he set out to accomplish is not achieved, and everyone sympathises with such a genuine sportsman in his misfortune. But after all is said and done, has not Mr. Latham's successful failure taught even more than would have been available from an uneventful success? Had he flown from Sangatte to Dover as had been hoped, and as he may yet do with the fates more favourable to his project, there would still have been that plaintive cry wailing beneath the general thunder of applause "Yes, but whatever would have happened had he fallen in the sea?"

It might have been years before anyone would have been found to come forward in willingness to demonstrate an answer to this question, for even apart from personal risk there is ever the prospect of losing a costly machine, and where logic fails to influence *via* the head, it is generally potent enough through the pocket. The chance which brought Mr. Latham down in mid-Channel, therefore, should, seeing that it did him no harm, be regarded from the standpoint of the old adage that "it's an ill wind that blows nobody good."

The question of being able to make a safe descent as far as the surface of the water, in the event of a mishap, was never really in doubt, since all aviators are agreed that, given sufficient height, it is practically always within the bounds of possibility to glide in the end even if the equilibrium of the machine has been temporarily upset in the beginning; that is, of course, always assuming that the pilot is a cool hand, and Mr. Latham is that and a good deal more. Taking the water at gliding speed—which by the way is at least that of the normal speed of flight—is an altogether different matter, and needed some such practical evidence as Mr. Latham gave on Monday, in order to supply any sort of clue as to what might be reasonably expected in a similar emergency. As to what might happen after the machine had settled on the water, there was also very considerable doubt, although we believe that Mr. Latham himself never expected anything else but that his flyer would float. There remained only one other point, and that was as to how far the pilot might hope to save himself should the machine sink, and this last we are exceedingly pleased Mr. Latham did not have to prove; he had done quite enough for one morning's work, and it was after all the least the fates could have done for him after he had braved their frown in such a sporting manner, to give him at the end the chance to smoke a cigarette in peace.

It is, of course, quite impossible to overrate the importance of the personal factor in an emergency of the kind which befell Mr. Latham. He was on the point of taking a photograph of his convoy, the torpedo destroyer "Harpon," as it steamed furiously through the waters nearly a thousand feet below, when he first heard his engine mis-fire. If in the whole gamut of human sensations there is anything more likely to bring one's heart into one's mouth than the sudden mis-firing of one's engine while aboard a flyer a thousand feet above the sea, we should like to know of it; it should come very near to paralysing the nerve centres, we should imagine. "Instantly I gave up any idea of photography" is Mr. Latham's first remark in commenting upon the incident.

Well, it needs a little getting used to, to appreciate the exact frame of mind which will permit of an interest in

snapshots simultaneously with the necessity of paying attention to flight, so that perhaps after all it is only in keeping with the situation that Mr. Latham should have found it natural to explain that he did not finish taking the picture before he attended to anything else. In fact, one may even be permitted to regret, under the circumstances, that the photograph was not taken; it would have been such an extraordinarily interesting memento of the occasion.

"I examined all the electrical connections that were within my reach," continues Mr. Latham in the narrative he wrote for the *Daily Mail*. Could anything possibly give greater confidence in the future of the flyer than this simple statement? Here is a man who has such confidence in his machine that he is able, at critical moments like this, to set about trying to cure ignition troubles, forsooth, in mid-air. We can almost imagine that it would have needed no more than the slightest excuse for Mr. Latham to have set about and changed an ignition plug. But, as he explains, "I could hear that more than one of the eight cylinders were mis-firing." Affected by the recollection of the difficulty, Mr. Latham gives way at last to his first signs of feeling. "It was maddening, but I was helpless. Never before had the engine played me such a trick after so short a flight." Like all good sportsmen, Mr. Latham accepted the inevitable, but with the firm intention of making the best of that, too, and having "calculated that the torpedo boat destroyer was about a mile away" he glided down to the surface of the water, for, as he succinctly remarks, "There was nothing else to be done."

Describing his descent, Mr. Latham says, "I came down not in a series of short glides, but in one clean straight downward slope. My speed at the moment of impact was about 40 or 45 miles an hour. The machine was under perfect control during ascent; instead of diving into the sea at an angle I skimmed down so that I was able to make contact with the sea with the aeroplane practically in a horizontal position. It settled on the water and floated like a cork. I swung my feet up on to a cross bar to prevent them from getting wet. Then I took out my cigarette case, lit a cigarette, and waited for the torpedo destroyer to come up." Although Mr. Latham does not actually make the remark, we imagine it was merely an omission that he did not conclude the above sentence with his former delightful platitude, "There was nothing else to be done."

The gliding descent, the taking of the water in a horizontal attitude at a speed of 40 miles an hour, and the subsequent bouyancy of the Antoinette flyer, are all matters of the greatest possible importance, less, perhaps, on account of any immediate and direct application than because of their unique character. No man wants to lose his life in flying if he can help it, and even the best of swimmers, and we believe Mr. Latham is a master of this accomplishment, generally dislike getting wet within their clothes.

But there are bound to be many enthusiasts who aspire to the Channel crossing, and it is going to make all the difference in the world what machine becomes popular for this little journey, as to which affords the greatest security in the event of mishap. Even the best regulated of engines are apt to misfire, and if they follow this up by stopping off work altogether, as Mr. Latham's motor did, there is, as Mr. Latham expresses it, nothing else to be done save to descend upon the water with what ease

and grace the pilot and his flyer are jointly able to accomplish.

However well patrolled the course may be—and it would be difficult in general to ensure greater conveniences than those with which the French Government backed up Mr. Latham—there is bound to be a certain interval between the descent and the rescue, so that even supposing it is not going to be a matter of life and death, there is always the prospect of considerable discomfort. If the flyer can do nothing else for its pilot, it may at least keep him high and dry while he whiles away the time with a cigarette or takes a few snapshots of his surroundings.

Altogether Mr. Latham's flyer was afloat for half-an-hour or more before it was picked up by the steam tug "Calaisien," and Mr. Latham is of the opinion that it would have floated for a couple of hours or so in a calm sea. As a matter of fact, however, the slight swell in the Channel subsequent to his rescue caused a considerable amount of damage to the planes and other less robust parts of the structure. The mere fact that the flyer kept afloat in the water at all, however, is the chief point, for

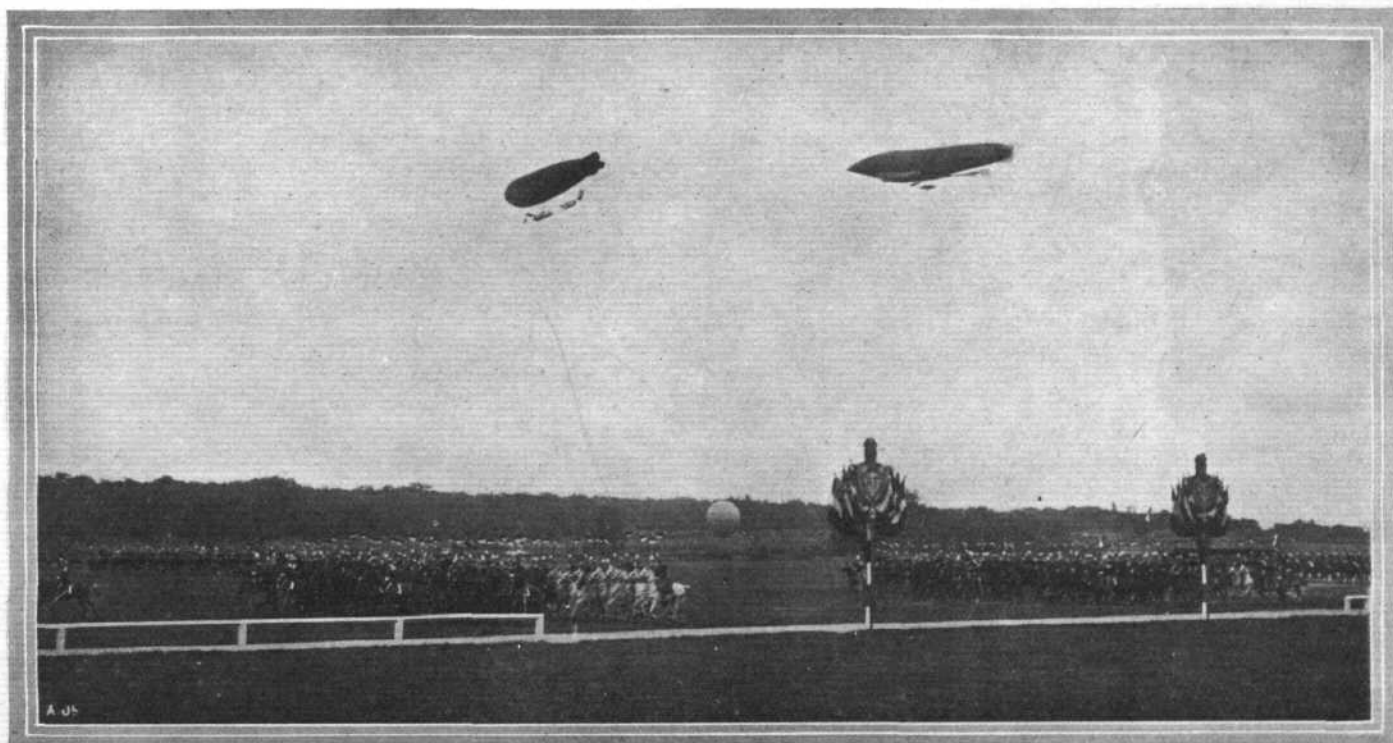
it is a basis of a reliable character from which further developments can be evolved by those who may specially wish to improve this characteristic. The satisfactory accomplishment of a gliding descent from an altitude of 1,000 feet is the outcome of the same qualities which render a machine successful in flight, that is to say, a combination of natural stability and skilful control. The actual contact with the water at full speed must, we should imagine, always be attended by a risk of diving if the machine is not very well managed during the last few lengths of its flight in the air, more especially since the balance of a flyer is not yet considered from the point of view of its buoyancy in water. Mr. Latham's machine, as is only to be expected, was very much down by the head, but its floating position just kept the pilot's seat above water. On the whole it suggests that a great deal is not wanted to make a satisfactory monoplane which shall be quite reasonably safe on calm water, and it is by no means beyond the realms of possibility that there may spring up in consequence a cult of over-water flight among those who are naturally at home in this element: it also suggests a possible phase of gliding by the sea.

NATIONAL

THE week that is closing has proven highly gratifying to patriots, and especially encouraging to those who have the development of aerial navigation at heart. While the heavier-than-air type of craft has been considerably in evidence among sportsmen on the Continent, at home the first really serious steps towards placing this nation in possession of dirigible aircraft for military uses have been taken in co-operation with the authorities. On Tuesday the *Morning Post* was enabled to publish the conditions laid down by the War Office as essential to be fulfilled by any airship that could be considered a

AIRSHIPS.

practical machine for the work of the British Army, either at home or overseas. Those conditions have been approved in detail by the Advisory Committee of the National Airship Fund, which committee consists of Earl Roberts, Viscount Milner, Lord Charles Beresford, Mr. E. P. Frost, D.L., J.P., President of the Aeronautical Society of Great Britain; Mr. Roger Wallace, K.C., Chairman of the Aero Club of the United Kingdom; and Colonel H. S. Massy, C.B., President of the Aerial League of the British Empire. It is desirable to refer to the nature of the conditions, which are produced elsewhere in full



A very striking object lesson was displayed to the world at the French review of troops at Longchamps on Wednesday of last week, when, during the march past, as we recorded last week, two of the French balloons—the "Ville de Nancy" and the "Republique"—sailed over the heads of the troops, executing several manoeuvres, and ultimately getting into line made a "charge" through the air together. Enthusiasm reigned very high amongst the spectators at this demonstration of the most up-to-date form of military development. This historical incident is seen in our photograph above.

Even the layman reading them will be aware that they are somewhat severe, while the expert will appreciate that any machine that can fulfil them must be an all-round improvement on the best of the military aircraft so far available. The War Office and the representatives of the National Airship Fund have done wisely in simply setting out their requirements in place of attempting to stipulate the particular design or special details to be embodied in any machine to fulfil their needs. After all, the public which is subscribing to the National Airship Fund, like the Army that will have to use the ship, can have no preconceived leaning towards one particular vessel or another. The sole point that matters is that whatever vessel or vessels shall be supplied to the Nation, shall be of an eminently practical sort, and equal not only to the very best achievement to date, but also to the latest performance up to the time of its actual delivery. That is why the War Office lays down conditions that mark an advance on Continental achievement to date, and which are nevertheless drawn up so carefully that they do not necessitate the machine being of an experimental sort, because the extent of advance required is only the legitimate amount of progress desirable and possible with the passage of months.

Leaving it entirely open to manufacturers to design to any shape, size, power or weight, the War Office has merely stipulated its requirements as to performance under varying conditions. Some eminently sensible tests will have to be fulfilled to demonstrate that the materials employed in the construction of aircraft shall be satisfactory. Since these conditions apply to any machine required for Army service they may be summarised. The balloon must carry a crew of six, together with wireless telegraph apparatus up to 300 lbs. in weight, and petrol and ballast, together making up a weight of not less than one-fourth of the full total lift. Two similar engines of equal horse-power, with all the parts interchangeable, must be fitted, each motor independently or both together to be used at will in working the propellers, so that should one fail temporarily half-power would be available always. The dirigible must be of the frameless or of the semi-rigid sort, because experience on the Continent has proven that for military service the rigid type, exemplified more particularly by the Zeppelin school, cannot be collapsed and packed into small compass for the purposes of transport, which are among the War Office requirements. It is stipulated that thirty men must suffice to take the airship in and out of its shed on a calm day, that it must be capable of anchoring in the open for 24 hours in moderate winds up to 20 miles an hour, that the stability and steering capability must be satisfactory, that the envelope must not lose by leakage more than one-hundredth of its capacity for every day of 24 hours, that the balloon must be capable of rising to a height of 6,000 feet with its full crew and wireless apparatus, and must have in hand then sufficient fuel for three hours' run at full speed, together with one-fifth of the original complement of ballast, so that it shall be a machine capable of getting out of range of shrapnel fire (5,000 feet), while yet carrying on its work; and it must be able to demonstrate its speed on a measured course of five miles with and against the wind, at not less than 32 statute miles per hour, which is about the average best speed of the German Government airships, that are very efficient in this connection. Lastly, the War Office wants a machine which can navigate side winds as well as head winds, for the conditions of service in the

British Isles are somewhat more severe than obtain well inland on the Continent, hence the balloon which it will accept must complete a triangular course of one hundred miles each side—that is, a total course of three hundred miles—in not more than fourteen hours, travelling fully equipped, while for four hours of that journey the height above sea-level must not be less than 3,000 ft.

Even the most captious critic must allow that any machine that can fulfil this catalogue of requirements must be an eminently practical one. Some might be inclined to deem it impossible of attainment. No business specification deals with the expectations of the enthusiast, but with the actualities of the manufacturer. The question, therefore, is: Is any manufacturer prepared to build a machine under those conditions, which airship shall not be paid for until it shall have fulfilled them? The answer is in the affirmative, for in the *Morning Post* of Wednesday last a very fine piece of enterprise was announced, whereby an order has been placed with Messrs. Lebaudy Frères—who have built four airships for the French Army, one for Russia, and have in hand another for Austria—for a dirigible guaranteed by them to fulfil every detail of the War Office conditions. With the commissioning of a firm of such repute, experience, and proven ability, there is no possible doubt that the Army will be duly in possession of the most up-to-date airship of the semi-rigid sort for military uses in the world. But the War Office is equally prepared to see the Army equipped with an airship of the frameless sort that shall be capable of fulfilling its conditions. In this connection it must be borne in mind that early this autumn the "Clement-Bayard," that has been built with a view to its being supplied to the British authorities, is due to be completed. The *Morning Post* has therefore had the enterprise to procure from the Parliamentary Aerial Defence Committee—that has an option on the Clement-Bayard airship, but which is not concerned with the raising of funds—the assurance that there will be no manner of objection to the dirigible in question being purchased by the National Airship Fund providing it demonstrates its ability to fulfil the War Office conditions. Furthermore, if the machine in question can fulfil those conditions it is eminently desirable that the nation should possess it, because it will be the first non-rigid vessel available of the type desired. Therefore, with most praiseworthy enterprise, the *Morning Post* is prepared to acquire the Clement-Bayard airship for the nation, in addition to the airship ordered from Messrs. Lebaudy Frères, provided that a satisfactory price can be arranged, and that the stipulated conditions are fulfilled by it.

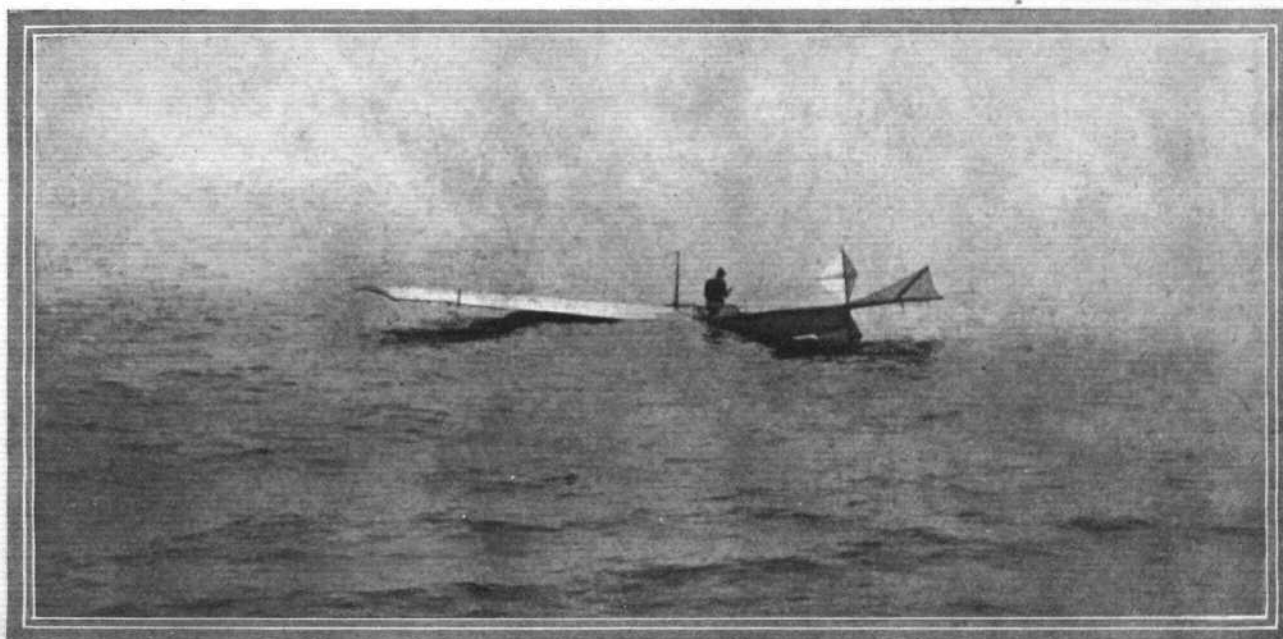
In that case the nation would have the best non-rigid and the best semi-rigid dirigible airships in the world. But briefly, the whole thing is eminently businesslike. When the appeal of our contemporary went forth to raise the money by private and patriotic generosity to present the nation with a dirigible balloon of the most approved type, the position of this country in regard to aerial locomotion for military uses looked very gloomy indeed. That fine enterprise, however, has wrought a magic change within the brief space of a month. To-day the country is assured of one airship that will fulfil the admittedly stringent conditions imposed by the War Office, and has in prospect a second machine which will be secured also if it proves suitable, in which case the desired example of another school of construction, namely, the frameless system, will be possessed to match against an example of the semi-rigid type. Bold and

courageous as the original plan proved, the actual performance of the National Airship Fund far eclipses the most sanguine expectations that could have been entertained by the public at the time it was launched, for it is now absolutely certain that one vessel of the rigid kind will be possessed by the Army, and, in addition, there is every likelihood of another being owned.

Scarcely any terms of admiration can be too high to employ concerning such an achievement. Now the public is in possession of the information of what has been done so speedily and unostentatiously, we cannot conceive that there can be any delay in the required sum of £20,000 becoming fully subscribed. Half that money has been raised already in response to the appeal before it was possible to publish any information as to what steps were being taken on behalf of the National Airship Fund to ensure that the money should be spent to good purpose, that there should be no undue delay, and to prove that an actual machine of a kind second-to-none, would be actually forthcoming. The progress is inspiring in the highest degree, and should cause all patriots, whether they can afford a shilling or a thousand pounds, to send some contribution to the funds. The only possible doubt now is that those whose attention is drawn to the situation may falsely conclude that the very satisfactoriness of the present enterprise will ensure the money being fully subscribed, and therefore consider that there is no need personally for them to contribute. That way danger lies. There is need for everybody who can, to contribute forthwith. To wait for others to take on themselves the duties of patriotism is a poor thing indeed. Contributors now have tangible evidence that their money is not to be spent on an experiment, but on a machine that is guaranteed to comply with certain admittedly stiff conditions, very various in their nature. We have, therefore, the heartiest confidence in recommending all those who are interested in the matter of seeing this country take its due place in regard to the development of aerial locomotion to support the National Airship Fund, contributions to which should be addressed to the Hon. Secretary, National Airship Fund, *Morning Post* Offices, 346, Strand, W.C., and cheques should be

crossed Lloyds Bank, Law Courts Branch. The fact that it is foreign airships which are being taken in hand by this fund is not any argument against subscribing to it, because the need at the moment is to secure examples of the very best that can be achieved by those abroad, who are admittedly far ahead of public British performance. As soon as we shall have such vessels, there will be reliable ground for British manufacturers to go on in the starting of a home industry. It is largely from this point of view that we, whose sole concern is the development of flight in Britain, urge alike those who are interested in the sport, the science, and the industry of aeronautics, to support this great and eminently practical first attempt to awaken the nation to the possibilities of aerial locomotion by the indisputably prompt and effective process of ocular demonstration, and to put the authorities in possession of absolutely serviceable air-craft. Let us remember that the thing needs doing once, and once only. This is not an appeal that will have to be repeated periodically. The certain and urgent need of the country is being met, once and for all, in supplying it with the most perfect dirigible balloon possible to be produced in the present state of the science, whereby the masses will become enabled to realise the worth and significance of the new development.

It is the pressure of that self-same public that will be brought automatically to bear on whatever Government shall be in power in the future whensoever it shall be necessary to urge the expenditure of public money on the exploitation of aerial navigation for national uses. Anything which influences the electorate in the direction of demanding the adequate representation for Great Britain as regards airships and other flyers is therefore much to be desired, alike from the point of view of the patriot as from that of the aeronautic movement. Once get the ball fairly started rolling by adopting the present "emergency" policy of obtaining by public subscription what the Government coffers ought to supply, and the deadly inertia of red tapeism will cease to remain the danger that it has now been for some months. The one crucial opportunity to bring about that delectable state of affairs is at hand. Let us not allow it to escape.



LATHAM'S CHANNEL FLIGHT.—Hubert Latham and his machine immediately after falling into the sea. It will be noticed that Mr. Latham is standing up in the middle of the flyer, where he was quietly waiting for the French torpedo destroyer "Harpon" to take him on board, in the meantime calmly smoking a cigarette.

THE CHANNEL FLIGHT.

Latham's Channel Flight.

AFTER many weary days of waiting, which taxed the patience of aviator and spectators to the utmost, the weather was at last propitious for an attempt on Monday, July 19th, and at 20 minutes past 6 in the morning, three guns booming from the destroyer "Harpon," which was steaming at half-speed below the cliffs at Sangatte, definitely informed all concerned that M. Levavasseur, who was on board, had decided that the conditions were good enough, and that the flight should be made.

As the whole world now knows, the bare facts are that at 6.48 everything was ready, and the machine, after running down the slope at Blanc Nez, at last rose into the air. Before seven, Mr. Latham had disappeared from sight, and by the half-hour, had all been well, he would have been on the point of landing at Dover.

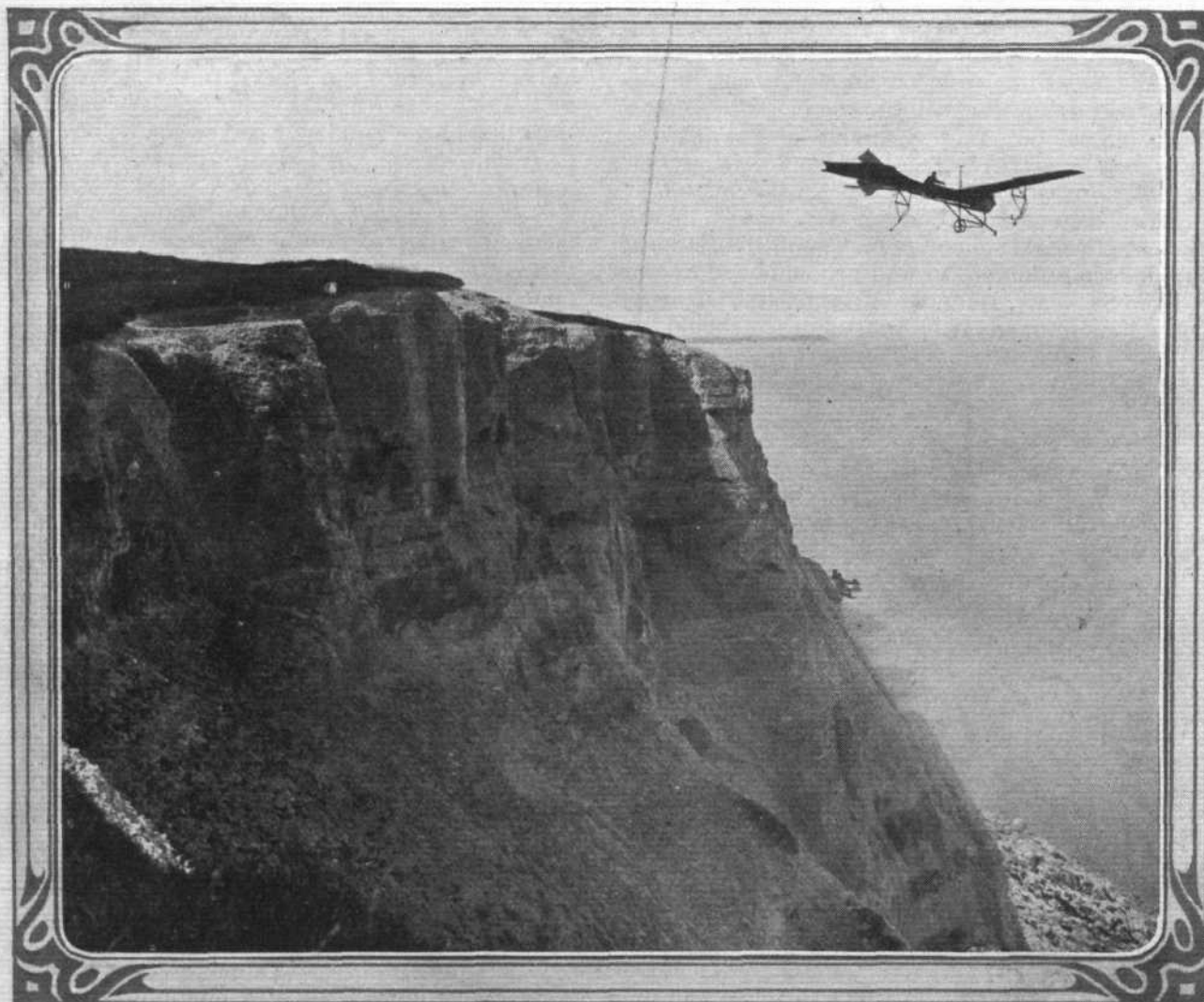
When from 6 to 8 miles out from the French coast, however, his engine mis-fired, and ultimately stopped altogether, so that he was forced to descend in the Channel. At the moment when his engine failed the Antoinette monoplane was about 1,000 ft. above sea-level, and the gliding descent was accomplished with absolute success, the machine striking the water in an almost horizontal position at a speed of from 40 to 45 miles an hour. So far from sinking, the flyer floated

perfectly, although somewhat down by the head, and the intrepid pilot, so far from being inconvenienced by his extraordinary position, did not even get his feet wet, and during the interval which elapsed before his convoy, the destroyer "Harpon," could reach him, he calmly passed the time by smoking a cigarette.

Having gone on board the destroyer himself, the aeroplane was subsequently hoisted up by the steam tug, "Calaisien," after it had been afloat for over half-an-hour. It was by that time somewhat damaged in its more delicate members, but still buoyant. Both boats returned to Calais, where the aviator received a welcome of tremendous enthusiasm, being called upon, among other things, to kiss the queen of the port, a buxom, red-cheeked fisher-girl.

Mr. Latham's Programme.

THAT same evening Mr. Latham left for Paris in order to see about getting a new machine, and with such dispatch did he carry out this work that he had the nearly-finished "Antoinette VII" *en route* for Calais by Tuesday night. All being well, another attempt should be possible early next week at latest. The new machine, although slightly larger in surface, is otherwise identical with that employed on Monday.



LATHAM'S CHANNEL FLIGHT.—The start from the French coast on Monday morning last.

While dismantling the rescued flyer at Sangatte on Tuesday, M. Levasseur came across a small piece of metal in some place to which it did not belong and attributes the cause of the failure to its presence.

The Wireless Story.

No better account of Mr. Latham's famous first attempt could possibly be obtained in a condensed form than is given by the following series of wireless messages, which we reproduce as an historical record, transmitted and received at the special station on the Lord Warden Hotel:—

Sangatte, 4.30 a.m.—Weather here unfavourable; thick mist, slight rain, little wind.

Dover, 4.38 a.m.—Unfavourable here; fog, followed by wind and wet.

Sangatte, 5.5 a.m.—Stand by. Every hour wind conditions getting more favourable.

Dover, 5.10 a.m.—Weather clearing.

Sangatte, 5.16 a.m.—Latham wants to know is fog clearing. How far in this direction can you see? He will start if conditions not more unfavourable.

Dover, 5.20 a.m.—Can see 10 miles.

Sangatte, 5.48 a.m.—Don't leave instrument for a second. Torpedo-boat arrived, and exchanging signals with the shore. Mechanics preparing to get the machine. Weather nearly ideal, excepting for mist.

Sangatte, 5.52 a.m.—He will probably start in about fifteen minutes. Stand by.

Sangatte, 5.58 a.m.—Machine has been brought out of shed. Waiting for signal to start. Conditions ideal.

Sangatte, 6.12 a.m.—Machine being taken along the road to the starting place on Blanc Nez.

Sangatte, 6.16 a.m.—Gun signal to start has been given. Please inform Customs.

Sangatte, 6.22 a.m.—Destroyer "Harpon" is steaming seawards. Machine in position. Start in about ten minutes.

Sangatte, 6.42 a.m.—He has gone.

Sangatte, 6.46 a.m.—He is making wide, sweeping circles.

Sangatte, 6.50 a.m.—He is out of sight of strongest glass.

Sangatte, 6.53 a.m.—Look out for him, and tell us at once.

Dover, 7.23 a.m.—Anything yet?

Sangatte, 7.24 a.m.—No report yet.

Dover, 7.46 a.m.—Not in sight. Requesting assistance, fishery cruiser to search.

Dover, 8.6 a.m.—Very anxious here. Cannot see torpedo-boat or Latham. Can you?

Sangatte, 8.11 a.m.—Lost sight of torpedo-boat ten minutes after start. Large crowd here anxious for news.

Sangatte, 8.38 a.m.—President of Chamber of Commerce received telephone message saying Latham fallen into sea.

Sangatte, 8.53 a.m.—Report here that tug has been seen bringing back machine.

Sangatte, 8.57 a.m.—It is a fact that tug just gone by at a distance.

Sangatte, 9.3 a.m.—We are leaving for Calais.

H.M.S. "Halcyon" to Marconi Station, Lord Warden Hotel, 9.10 a.m.—Have you lost touch of aeroplane? Do you want us to look for it?

Marconi Station, Lord Warden Hotel, to H.M.S. "Halcyon," 9.15 a.m.—Tug has aeroplane in tow. Many thanks for your kind offer of assistance. Are you the fisheries cruiser?

H.M.S. "Halcyon."—Yes. Many thanks.

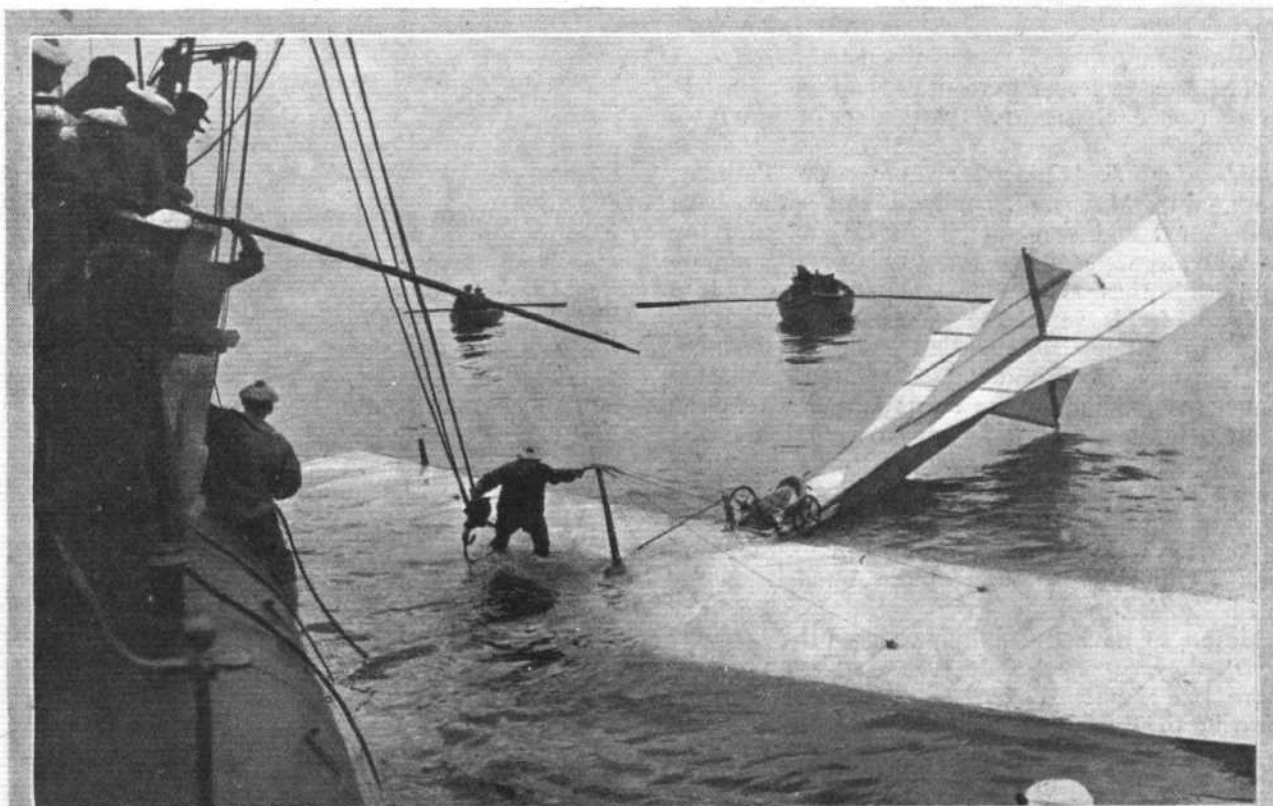
Sangatte, 10.20 a.m.—Latham is safe at Calais. Machine damaged.

Wilbur Wright on the Channel Flight.

SPEAKING on the subject of Mr. Latham's attempt, Mr. Wilbur Wright is reported by cable to have said that he was surprised that the Antoinette flyer got as far as it did, as he does not consider that the engine is suitable for the purpose. Asked if he thought his own biplane could keep afloat in the water, Mr. Wright said that it all depended how the initial contact was made. He anticipated that it would float for some time after a gliding descent, owing to the cushion of air imprisoned beneath the lower plane.

Bleriot enters for the Cross-Channel Prize.

SEIZING the chance offered by Mr. Latham's failure, and inspired by his own successful cross-country flight of last week, M. Bleriot has formally entered his name for the *Daily Mail* cross-Channel prize. According to his



LATHAM'S CHANNEL FLIGHT.—The rescue of the Antoinette flyer by the French torpedo destroyer "Harpon." One of the French sailors hitching the hoisting tackle to the centre of the machine.

letter, it was his intention to compete on Thursday or Friday of this week—too late for the results to appear in this issue. If the wind is northerly, M. Bleriot states that he will make the attempt from England to France instead of *vice versa*.

Any delay in M. Bleriot's programme will give Mr. Latham time to get his machine ready, so it looks as if the Channel flight may even develop into a race.



MR. CODY'S STEADY ADVANCE.

Cody Flies over 4 Miles.

MR. CODY has again been successful in his flights on Laffan's Plain, his latest record on Wednesday being a flight of about 4 miles in length.

Cody and his Critics.

MR. CODY has recently felt constrained to take notice of various remarks which have appeared about his work in the general Press, and in a circular letter in which he gives expression to his views, he draws attention to one or two common misconceptions about the behaviour of his machine. The following paragraphs are those which actually deal with the points to which he takes exception:—

"It has been stated that I myself ascribe the undulating motion of some of my flights to the insufficient power of my engine. This is a great mistake, as it is certainly not the cause. Neither do I



AIRSHIPS FOR THE NATION. ONE ON ORDER AND READY TO TAKE A SECOND.

At the second meeting of the Advisory Committee of the National Airship Fund started by the *Morning Post*, the particular requirements of the War Office for a serviceable military dirigible were discussed and agreed upon. Their exact terms were drawn up in a memorandum of twelve clauses, full particulars of which we give herewith.

The *Morning Post* placed an order on Tuesday, July 20th, with Messrs. Lebaudy Frères—who have already designed and constructed four dirigibles for the French Army, as well as one for Russia—for an airship to comply with these War Office requirements, and to the purchase of this vessel the £20,000 for which the *Morning Post* originally appealed will be devoted. Messrs. Lebaudy have undertaken to meet all the requirements embodied in the terms laid down by the Advisory Committee, and it has been agreed that the test of their fulfilment shall rest with a British committee consisting of two War Office representatives, two representatives of the *Morning Post*, one representative each of the Aeronautical Society of Great Britain, the Aero Club of the United Kingdom, and the Aerial League of the British Empire.

In addition to having definitely ordered the Lebaudy airship, the *Morning Post* state that they are prepared to acquire the Clement-Bayard airship, which is being brought over to England for inspection by the Parliamentary Aerial Defence Committee; that is, of course, if a satisfactory price can be arranged and the airship itself complies with the afore-mentioned requirements.

The amount contributed to the National Fund up to Tuesday night, July 20th, is £9,525 10s.

Count Lambert nearly ready.

BOTH Count de Lambert's flyers, Wright No. 2 and Wright No. 18, were assembled at Wissant, on the French coast, by Monday of this week, but, apparently being indifferent to the *Daily Mail* prize, the Count has no intention of unduly hurrying his attempt at crossing, and intends to practise very thoroughly in the vicinity before he really steers for England.

agree with what has also been asserted, that my inability to steer my machine is responsible for either the wave-like movement or the yawing from right to left. Up to now these motions have mostly been intentional, though space will not here permit me to state my reasons for such a course. However, should your representative require verification on the subject, I am quite prepared to satisfy him on any suitable practice day, as I maintain that my machine has shown no longitudinal or lateral instability during my experiments on Laffan's Plain.

"Another serious mis-statement has been that the centre of gravity on my machine lies below the bottom plane. I emphatically deny that such is the case. I must also question the authority which states that the power of the Wrights' engine is half that of mine. Even if such were the case, I would point out that my machine is nearly twice the size of theirs. Another thing, my aeroplane is only in its experimental stage, while the Wrights' is now placed on the market as a finished article.

"In conclusion, I must add that the resistance of my machine is less than any biplane yet built, constructed as it is with every possible effort for avoiding head resistance, a detail which has, up to the present, been taken into less consideration by any other aviator, including the Wrights and M. Voisin."

The text of the conditions drawn up by the Advisory Committee are as follow:

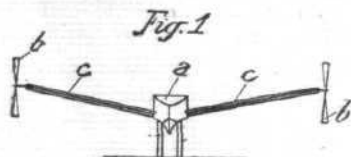
1. The balloon to carry a crew of six, together with wireless telegraph apparatus up to 300 lbs. in weight, and petrol and ballast together making up a total weight of not less than one-fourth of the full total lift.
2. The balloon to have two similar engines of equal horsepower, all parts of which are interchangeable. Either engine independently or both together to be used at will in working propellers.
3. The ballonette capacity to be one-fourth of the total capacity of the balloon.
4. The balloon to be of the non-rigid or semi-rigid type.
5. The balloon to be portable, that is, to be capable of being taken to pieces easily when deflated, and packed on wagons for land transport.
6. The balloon to have anchor ropes and guiding ropes, and to be capable of being taken in and out of its shed by not more than 30 men, in a calm day, that is to say, when the wind is not more than 10 miles an hour.
7. The balloon to be capable of anchoring in the open for 24 hours in moderate winds up to 20 miles an hour.
8. The stability and steering capability of the balloon must be satisfactory.
9. The balloon envelope not to lose by leakage more than one-hundredth part of its capacity for every day of 24 hours.
10. The balloon must be capable of rising to a height of 6,000 ft. with its full crew and wireless apparatus, and must have in hand then sufficient fuel for three hours' run at full speed, together with one-fifth of the original complement of ballast.
11. The balloon must complete a triangular course of 100 miles each side, that is, a total course of 300 miles, in not more than fourteen hours, travelling fully equipped. For four hours of this journey the height above the sea-level not to be less than 3,000 ft. Any suitable day may be chosen.
12. The speed of the balloon on a measured course of 5 miles with and against the wind (due allowance being made for the velocity of the wind) shall not be less than 32 statute miles per hour.

BLERIOT'S NEW PATENT.

AN INVENTION RELATING TO THE METHODS FOR STARTING FLYERS WITHOUT AN INITIAL RUN.

M. LOUIS BLERIOT, whose wonderfully successful cross-country flight was the feature of last week's progress in aviation, again comes to the fore this week with proposals for starting an aeroplane without an initial run over the ground as a means of acquiring its flight velocity. In M. Bleriot's own words, his method consists "in applying to aeroplanes and similar apparatus propellers with

The propeller, b^1 , seen in that figure, first of all draws on the front portion of the wing, c , and then submits the latter to the action of such a force as $d-e$ assumed to be transferred to the centre of thrust, d , of the said wing. In view of the inclination of the wing relatively to the horizontal and the place occupied by it relatively to the same, the propeller produces a compression of air situated under the said wing, as well as a rarefaction of

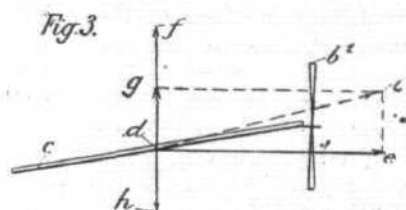
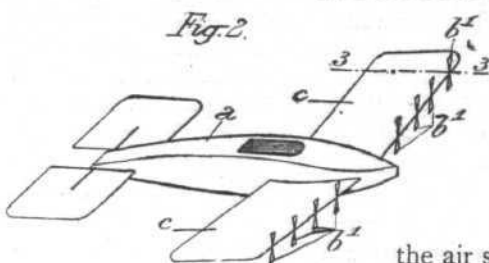


horizontal, or practically horizontal, driving shafts, so arranged that they can drive the air against the inclined wings of the apparatus, so as to sweep their surface and to submit them to elevating forces similar to those to which they are submitted with the ordinary apparatus when running at high speed." This means, in short, a complete modification of the system of propulsion of these apparatus, which has hitherto always been designed in such a manner as to exercise as little influence as possible on the wings, and merely to impart to the apparatus strong horizontal traction.

In the construction shown in Fig. 1, the propelling mechanism of the aeroplane, a , is constituted for the purpose of obtaining the result desired by two propellers, b , mounted on the lateral ends of the wings, c , so that their shafts, which are normally parallel to the longitudinal axis of the apparatus, could be rotated to an angle of 90° in the horizontal plane containing them, about vertical axes.

With such an arrangement of the propelling mechanism it is sufficient, for causing the apparatus to rise from the spot, to bring about the said rotation to an angle of 90° of the propeller shafts, which will thus be placed in line with one another as shown in Fig. 1. The propellers, having been set in motion, compress the air under the wings; the apparatus rises, and as soon as the desired height for starting has been reached the shafts of the propellers are brought back to their normal position. The flight then continues in the usual manner.

In the construction shown in Fig. 2, the desired result is obtained by means elementary propellers, b^1 , mounted on the front edge of the wings, c , the action of which will be readily understood by the aid of Fig. 3.



the air situated above it, the result being a lifting force such as $d-f$, which is reduced to a force such as $d-g$ after its composition with the weight, $d-h$. The propeller has therefore the tendency to give to the wing a movement in the direction of the resultant, $d-i$, of the two forces, $d-e$ and $d-g$, that is to say an oblique movement upwards, the inclinations of which can be corrected at will by means of apparatus for the purpose.

In the result, an ascensional force is obtained at the very start (and not only after the apparatus has acquired a sufficient speed) and it is that force which is utilised for starting the flight; the apparatus leaves the ground as soon as the propellers are started working.

Utilised in this form, the propulsion system makes it impossible to obtain at the start a purely vertical rise as may be necessary in certain cases. The difficulty can, however, be easily remedied by temporarily connecting the aeroplane to a fixed point or a point capable of moving upwards only by means of any suitable connection. This connection results in the neutralization of the horizontal forces such as $d-e$, so that only the lifting forces such as $d-g$ remain.

There are seven claims to the patent, of which the first is:—

1. A method of starting aeroplanes and like apparatus, from a standing position, consisting in using a current of air set up by propellers so disposed relatively to the wings or other surfaces rigidly secured to the frame, that the said current of air communicates to the said surfaces an appropriate elevating force, substantially as described.

The subsequent claims relate to means for carrying out Claim 1 by methods described in the patent.

AT FRANKFORT AERONAUTICAL EXHIBITION.

AMONG the many firms represented at this up-to-date show are the Continental Company, the parent house of the Continental Tyre and Rubber Co. (Great Britain), Ltd., who are exhibiting their world-renowned Continental balloon and aeroplane sheeting. Greatly enlarged photos of airships and aeroplanes, the envelopes and coverings of which are made of Continental material, are shown on their stand. This is a remarkable collection, including as it does Count Zeppelin's airships, and the "Gross" and "Parseval"; the French airships "La Patrie," "La Republique," "Ville de Paris," "Clement-Bayard," "De la Vaulx-Zodiak"; aeroplanes on the Wright, Farman, and Esnault-Pelterie systems, &c.

From this it looks as if, with a few exceptions, the

finest airships in the world are made with "Continental" fabrics, and their constructors use this material exclusively.

A photograph of the balloon "Helvetia," with Colonel Schaeck as pilot, is also on view. This is the balloon, it will be remembered, which was declared winner of last year's Aero Gordon-Bennett Race, and will be long famous for its 72 hours' flight across the Baltic Sea, descending in the sea off the coast of Norway.

The big balloon "Preussen," in the centre of the hall (one of the largest in existence) is also made of "Continental" balloon material, while it is interesting to know that this balloon, although a veteran of 12 years, is still perfectly intact, and makes frequent ascents.

"HARE-AND-HOUNDS" BALLOON RACE.

PROBABLY no fashionable sporting fixtures have suffered more this year in the carrying out by reason of the awful weather which has hitherto prevailed than ballooning, and therefore the Hon. C. S. Rolls must be deemed fortunate in having allotted to him by the Clerk of the Weather practically the first fine day that has so far been available at Hurlingham for the various balloon race fixtures which form such a remarkably pleasant feature in the year's programme of this Club. The particular race which was down for contest, our readers will remember, as announced in last week's issue of FLIGHT, was a "hare-and-hounds" chase, for which Mr. Rolls had presented a cup to the Aero Club for competition. In his miniature balloon, "Imp," Mr. Rolls assigned to himself the rôle of hare for the occasion, whilst seven more or less huge sphericals competed with each other in the chase to land nearest to the spot selected by the hare at his own discretion for descending. Six of these balloons were entered for the race, the seventh being the Aero Club balloon "No. IV," piloted by Major Sir A. Bannerman, R.E., who followed, but not as a competitor.

That ballooning is a popular sport amongst the gentle sex must be evident from the fact that of the six competing balloons which constituted the pack of hounds, three were owned by ladies, viz., Baroness von Heeckeren, the Hon. Mrs. Assheton Harbord, and Mrs. John Dunville respectively, all three of these sportswomen taking active part in the racing. A very large number of Hurlingham Club members and others had gathered for the afternoon, in spite of the fact that polo was not possible owing to the state of the ground, and the greatest interest was evidenced around the balloon enclosure.

A pleasant and steady breeze made the prospects of a fierce chase practically certain, and the indication was that in all probability the southerly bank of the Thames would be followed by the balloons, thus affording one of most remarkable sights it would be possible to conceive, a bird's-eye view of the awe-inspiring fleet which had last week-end assembled at the mouth of the Thames. The wind, however, proved to be, although not quite as fickle as usual, slightly perverse in its methods, and a somewhat different course, it was found when Mr. Rolls rose well into the higher atmospheres with his "Imp," was

induced, taking the balloons directly towards Essex. One minute start enabled the hare to get well away. "La Mascotte" was the first of the hounds away on the track of the quarry. When actually passing over London Mr. Rolls thoughtfully gave the enormous crowds which had gathered in connection with the naval demonstration an opportunity of a peep at the voyagers in the air, by dropping to within a very few hundred feet from above the streets. That the manœuvre was appreciated by the crowd, the considerable shouting which ensued sufficiently evidenced, the upturned faces all along the line of travel being almost discernible to the occupant of the car.

By clever manœuvring Mr. Rolls thoroughly tested the judgment of the hounds in following his course, and ultimately after about two hours and ten minutes travelling, he made for a field at Carpenter's Arms, situate between Wickford and Rayleigh in Essex.

Mr. Pollock, who was piloting Mrs. Assheton Harbord's "Valkyrie" was close up to the "Imp," and no doubt for safety's sake elected to come down within 70 yards of the prey. Mr. A. M. Singer, who arrived some 10 minutes later, however, was more keen in getting near to the hare, he managing to land his "Satellite" balloon within about 12 yards of his object, thus winning the cup as nearest hound. The starters, together with their balloons and passengers, are given in our table.

Competitor.	Balloon.	Pilot.	Passengers.
Mrs. John Dunville	La Mascotte	John Dunville	V. Ker-Seymer
B. H. Barrington	The Comet	B. H. Barrington	Capt. L. V. Colby
Kennett		ton Kennett	
E. C. Bucknall	Enchantress	E. C. Bucknall	Capt. V. C. de Cres-
			pigny
Hon. Mrs. Asshe-	Valkyrie	C. F. Pollock	Capt. Van De
ton Harbord			Weyer
Baroness von	L'Esperance	Griffith Brewer	Sir Claude de Cres-
Heeckeren			pigny
A. M. Singer	Satellite	A. M. Singer	A. B. Burnand

Last year, when Mr. Rolls also used the "Imp," he retained all the honours, for none of the pilots occupying the eleven balloons which started in pursuit succeeded in locating him. Mr. John Dunville, in "La Mascotte," the first of the hounds away last Saturday, succeeded in landing within two miles of the quarry, while Col. Capper, in "Pegasus," was second, a mile or so further from the hare.

OFFICIALLY RECOGNISED RECORDS.

THE following performances have been officially recorded by the Commission Aérienne Mixte:—

Speed Records over Specified Distances.

Kiloms.	Holder.	Date.	Place.	Time.	Speed.
				h. m. s.	k.p.h.
1	Delagrangé	May 31, 1909	Juvisy	0 1 18½	45·801
2	Wilbur Wright	Sept. 21, 1908	Le Mans	0 2 44	43·902
5	Tissandier	May 20, 1909	Pont-Long	0 5 26½	55·100
10	"	"	"	0 10 46	55·727
20	"	"	"	0 21 29½	55·830
30	"	"	"	0 32 28½	55·434
40	"	"	"	0 43 19	55·404
50	"	"	"	0 54 8½	55·405
60	Wilbur Wright	Sept. 21, 1908	Le Mans	1 21 33½	44·136

Speed Records in Specified Times.

Time.	Holder.	Date.	Place.	Distance.	Speed.
hour.				kiloms.	k.p.h.
½	Tissandier	May 20, 1909	Pont-Long	12·500	50
1	"	"	"	27·500	55
1	"	"	"	55	55

CURTISS FLIES AND WINS PRIZES.

ENHANCED success has attended Mr. Curtiss's later efforts with his light biplane, since he has removed from Morris Park to Hempstead Plain, Long Island. On Thursday of last week, July 15th, he made two successful attempts, the first before breakfast, when he flew for 12 mins., and the second afterwards, when he remained aloft for 31 mins., and came down because he was tired.

This flight Mr. Curtiss estimated at about 16 miles or perhaps a little more. On Saturday he was officially timed for a flight of 29½ miles, which was accomplished in 52 mins. This last took place over a triangular course, measuring a mile and a third to the lap, set out by the Aero Club of America, and in addition to winning the Cortland Bishop prize of \$250 Mr. Curtiss now stands first for the *Scientific American* trophy.

AERO CLUB OF THE UNITED KINGDOM.

OFFICIAL NOTICES TO MEMBERS.

Fixtures for 1909.

August 28 ... Gordon-Bennett Aviation Cup, Rheims.
October 3 ... Gordon-Bennett Balloon Race, Zurich.

Committee Meeting.

A meeting of the Committee was held on Tuesday, the 20th inst., when there were present: Mr. Roger W. Wallace, K.C., in the chair, Mr. Griffith Brewer, Mr. Ernest C. Bucknall, Mr. Martin Dale, Mr. John Dunville, Prof. A. K. Huntington, Mr. F. K. McClean, Hon. C. S. Rolls.

New Members.—The following new Members were elected:—

Arthur Basil Burnand. Home Peel.
Edward Irving Findlay. The Earl of Shrewsbury.

It was decided to alter the date of the Ordinary Monthly Meeting from Tuesday, August 3rd, to *Tuesday next, July 27th, 1909.*

Monthly Dinner.

The monthly dinner will take place on Tuesday next, July 27th, 1909, at the Hotel Chatham, Regent Street, S.W., at 8 p.m. (5s. 6d. each). Members wishing to be present are requested to notify the Secretary not later than Monday, July 26th, 1909. Evening dress optional.

Aeronauts' Certificates.

Mr. A. M. Singer made his solo ascent on Monday last, the 19th inst., in the "Satellite," qualifying for an Aeronaut's Certificate. Mr. Singer having complied with all the rules, was awarded his Aeronaut's Certificate by the Committee of the Aero Club at their meeting on Tuesday last.

The Committee of the Aero Club have made the following addition to the by-laws governing Aeronauts' Certificates:—

"Candidates are requested to furnish a barograph chart of the observed ascents and the solo ascent."

Frankfort Exhibition.

Members wishing to join a party to visit the Frankfort Exhibition in September next, are requested to notify the Secretary. It is proposed that the visit be made towards the end of September when the various competitions for airships and aeroplanes will probably take place.

Rheims Aviation Week, August 22nd to 29th, 1909.

A large number of entries have been received for the Rheims Aviation Week, including all the well-known men on the Continent.

Members wishing to be present are requested to notify the Secretary as soon as possible to enable the necessary hotel and railway arrangements to be made.

"Hare-and-Hounds" Balloon Race.

This race took place on Saturday, July 17th, at Hurlingham Club. The fine weather brought out a large number of members to see the start. At 4 p.m., the "Imp," in charge of the Hon. C. S. Rolls, acting as the "hare," ascended, being quickly followed by the six pursuing balloons.

The "Imp" descended soon after 6 p.m. in a field at Rawrath, near Rayleigh. The "Valkyrie" also came down in the same field a few minutes afterwards. At 6.30 p.m. the "Satellite," after an exciting descent, landed 12 yards distant from the "Imp," and Mr. A. M.

Singer, the pilot, wins the cup presented by the Hon. C. S. Rolls.

The following balloons took part in the race:—

Hare.—"Imp," The Hon. C. S. Rolls.

Hounds.

Competitor.	Balloon.	Pilot.	Passengers.
1. Mrs. John Dunville	La Mascotte, 50,000 c. ft.	John Dunville	V. Ker-Seymer
2. B. H. Barrington Kennett	The Comet, 25,000 c. ft.	B. H. Barrington Kennett	Capt. L. V. Colby
3. Ernest C. Bucknall	Enchantress, 45,000 c. ft.	Ernest C. Bucknall	Capt. V. C. Crespigny
4. Hon. Mrs. Assheton Harbord	Valkyrie, 60,000 c. ft.	C. F. Pollock	Capt. B. G. Van de Weyer
5. Baroness von L'Esperance	Griffith	Griffith	Sir Claude Champion de Crespigny, Bart.
6. A. M. Singer	Satellite, 28,000 c. ft.	A. M. Singer	A. B. Burnand
7. Maj. Sir A. Bannerman, Bart., R.E.	Aero Club IV, 50,000 c. ft.	Maj. Sir A. Bannerman, Bart., R.E.	Noel Richardson, A. P. Hohler, Mrs. Pattinson

In the evening Mr. A. M. Singer entertained the competitors to supper at the Imperial Restaurant, and was congratulated on winning the first race in which he took part.

The official placings were as follows:—

Competitor.	Balloon.	Pilot.
1. A. M. Singer...	Satellite ...	A. M. Singer.
2. Hon. Mrs. Assheton Harbord	Valkyrie ...	C. F. Pollock.
3. Baroness von Heeckeren ...	L'Esperance	Griffith Brewer.

Shellbeach Flying Ground.

Members visiting the flying ground are requested to have with them their membership cards, as strict instructions have been given to admit only Members to the flying ground.

Members are also reminded that access to the aeroplane sheds can only be obtained with the written consent of the owners of the flying machines.

Railway Arrangements.—The following reduced fares have been arranged with the railway company for members visiting Shellbeach:—

1st Class return.	2nd Class return.	3rd Class return.
8s.	6s. 6d.	5s.

Tickets will be available for one month from date of issue.

Members desiring to avail themselves of these reduced fares are required to produce vouchers at the booking offices. Vouchers can be obtained from the Secretary of the Aero Club.

Trains leave Victoria, Holborn, or St. Paul's.

For the convenience of members, the best train is the 9.45 a.m. from Victoria, arriving at Queenborough 10.55. At Queenborough change to the Sheppey Light Railway for Leysdown (Shellbeach), which is $\frac{3}{4}$ -mile from the flying ground.

The Club House, Muscle Manor, is now open to members, and refreshments can be obtained there. Until the ground is being regularly used it is, however, advisable to send a telegram so that arrangements may be made. Telegrams should be addressed "Aero Club, Shellbeach, Eastchurch."

HAROLD E. PERRIN, Secretary.

The Aero Club of the United Kingdom,
166, Piccadilly, W.

AVIATION NEWS OF THE WEEK.

Farman's New Record.

It is really extraordinary how one good flight leads to another. On the top of the successes of Paulhan and Sommer, comes Henry Farman, right to the fore again, with a flight of 1 hr. 23 mins., which he accomplished on Monday at Chalons, July 19th, after eight o'clock in the evening. Mr. Farman has always given preference to the twilight, and it was not until 8.17 that he made a start. From that time he remained aloft until 9.40, when it became practically impossible to continue by reason of the darkness. The present machine which Farman is using has an increased gap compared with his former model, and is also fitted with runners instead of wheels. Balancing planes are attached to the extremities of the main planes.

On Wednesday at Chalons, Farman took up Mr. Cockburn in the new flyer which this young Englishman is acquiring from him. They circled round the camp, covering a distance of 3 kiloms., their total weight being over 200 kilogs., made up as follows:—Cockburn, 92 kilogs., Farman 70, and fuel, &c., 40.

M. Paulhan's Continued Success.

ALTHOUGH it is but a few weeks ago that M. Paulhan was first heard of in the world of practical flight, his progress is of such a nature that it seems almost incredible that the time when flight was actually demonstrated as being possible by the Wright Brothers is only a matter of under two years ago.

The particular machine which M. Paulhan is using is a Voisin biplane with a Gnome motor. Last week, during practice at Douai, flying at a height of 30 metres, he covered 12 kilometres in about 15 minutes. This he followed up on Thursday last by flying, again at Douai, before an audience of about 5,000 people, for a period of 1h. 17m. 19s., thus bettering the record time of Tissandier, and coming near to the recent record time of Latham on his monoplane. The actual official distance measured from the posts constituting the official course was 48.178 kiloms., but, as a matter of fact, not much less than 70 kiloms. could have been covered, allowing

for the long sweeps round the limit posts of the aerodrome each time to ensure safety. His height for flying also was very impressive, it varying between 100 and 230 ft. high. Had it not been for the giving out of his fuel supply he would have found no difficulty in continuing far beyond the time he accomplished.

On Sunday last M. Paulhan made a successful official attack upon the high-flying record, and without any difficulty beat the record hitherto held by Wilbur Wright of 110 metres (360 ft.) established on December 18th last at Auvours. The height marked by balloons at Douai for this purpose was 120 metres (393.8 ft.) and Paulhan, without any fuss, not only cleared this height, but must have been flying at an altitude of at least 490 ft. Subsequently Paulhan made another attempt for time record, but at the end of 57 metres he returned to terra firma, this time having exhausted his supply of petrol.

On Monday last his daring was further demonstrated by a splendid cross-country flight of about 13 miles in 22 mins., from Douai to Arras, at a speed of about 40 m.p.h. Starting from Douai he came down in a field about 1 kilom. out to attend to his carburettor. He then restarted and flew direct to St. Nicolas, 6 kiloms. from Arras. After a greeting and reception by the Mayor of Arras, Paulhan started on his return journey, but finding the wind freshening, whilst his motor was also showing signs of temper, he deemed it prudent to re-alight. Unfortunately some unseen barbed wire caused considerable damage to his machine. Aviators will evidently, in this respect, be able to sympathise with the feelings of fox-hunters.

That this young aviator has ambitions is evident from the fact that he has made formal entry for the *Daily Mail* £10,000 prize, for a flight from London to Manchester, which he hopes to try for during the autumn. Flight is progressing truly.

Orville Wright's Successful Flight.

At last the Wrights have put an end to the suspense in America, for Mr. Orville Wright has now accomplished two successful flights, the first on Saturday last, when he covered about 12 miles in 16 mins., and the second on Tuesday of this week, when he made a flight lasting 1 hr. 21 mins. in the evening. This constitutes an American record, and beats Curtiss' best flight which was made on Saturday. During the course of the flight Orville Wright ascended to an altitude of 150 ft.

Wrights' Small Flyer.

THE present machine with which the Wrights are flying at Fort Myer has less surface than their previous model, the main planes being only 36 ft. by 6 ft. The pressure reaction has in consequence gone up above 2 lbs., and is now estimated at about 2½ lbs. per sq. ft., which in turn leads to a higher sustaining speed. This has had the result of lengthening the starting rail, and increasing the acceleration necessary for ascent. It has been at the back of the recent difficulties which have caused the delay in complying with the Government contract.



LATHAM'S CHANNEL FLIGHT.—Hubert Latham's return to Calais. The scene after his landing.

Aeroplane Racing.

ON Sunday last at Douai a speed race between M. Bleriot, on his monoplane, and M. Paulhan, on his Voisin biplane, created a huge sensation amongst the spectators assembled in the aerodrome. M. Bleriot succeeded in scoring best for the kilometre in a half-circle with the time of 1 min. 9 secs., thus securing the Mahieu prize, M. Paulhan's time being 1 min. 37 secs. Subsequently Bleriot also annexed the Prix du Nord for speed by covering 2 kiloms. in 2 mins. 29 secs.

Sommer's Rapid Progress.

IT is a period of phenomenal success with aviators just at the present moment, and next to M. Paulhan none have made such extraordinary progress as M. Roger Sommer, who flew for 1 hr. 4 mins. on Sunday last, July 18th. This is an extraordinary advance on anything that he has previously accomplished; in fact, it is only the other day that he attracted any attention at all. His history during the six consecutive days commencing with Tuesday, July 13th, should make encouraging reading for all beginners. On the 13th, he made two flights of 15 and 19 mins. respectively, on the 14th he flew for 27 mins. at an altitude of from 10 to 20 metres, and accomplished a 12 kilom. course outside the limits of the aerodrome in 10 mins. On Saturday evening he flew for 30 mins., using 12 litres of petrol, and on Sunday he exceeded the hour by 4 mins., which in some respects may be regarded as the great first goal of all embryo pilots.

During the week M. Sommer was elected a member of the Aero Club of France.

Lieut. Calderara Retires from the Field.

OWING to medical advice, it is announced that Lient. Calderara, who, it will be remembered, was one of the Government pupils taught by Wilbur Wright in connection with the delivery of Wright aeroplanes to Italy, has decided to retire from the flying arena for the future. His serious accident will still be fresh in our readers' minds, and it is not thought safe, in view of a possibility of a recurrence of the giddiness which he evidently experienced, for him to continue his work in this direction.

Another Recruit to Aviation.

ALBERT GUYOT, who recently secured, as driver, first place in the Grand Prix des Voiturettes, it is announced, is joining the ranks of aviators. He is to take in hand one of Louis Bleriot's monoplanes during the early part of August.

M. Gaudart Progresses Further.

ANOTHER of the youngest of the expert flyers is M. Gaudart, who has come forward through the pilot school of the Ligue Nationale. Last week at Juvisy he accomplished a flight of 500 metres at a height of about 20 metres. Continuing his practice on Sunday last, he succeeded in flying three times round the aerodrome, representing about $4\frac{1}{2}$ kiloms., in spite of very gusty weather, which brought him suddenly down to earth again. M. Gaudart gives promise of being speedily a prominent member of the rapidly expanding new school of flyers.

De Caters Flies at Ostend.

MONDAY of this week, July 19th, M. De Caters, who has taken his biplane to Ostend, made a successful first flight over the sands. Owing to the crowd, however, it was impossible to proceed with the experiments.

Piquerez and His Biplane.

AT Chartres, Piquerez has been following up his work, but in attempting to take a turn came to grief through contact with a tree, breaking his propeller.

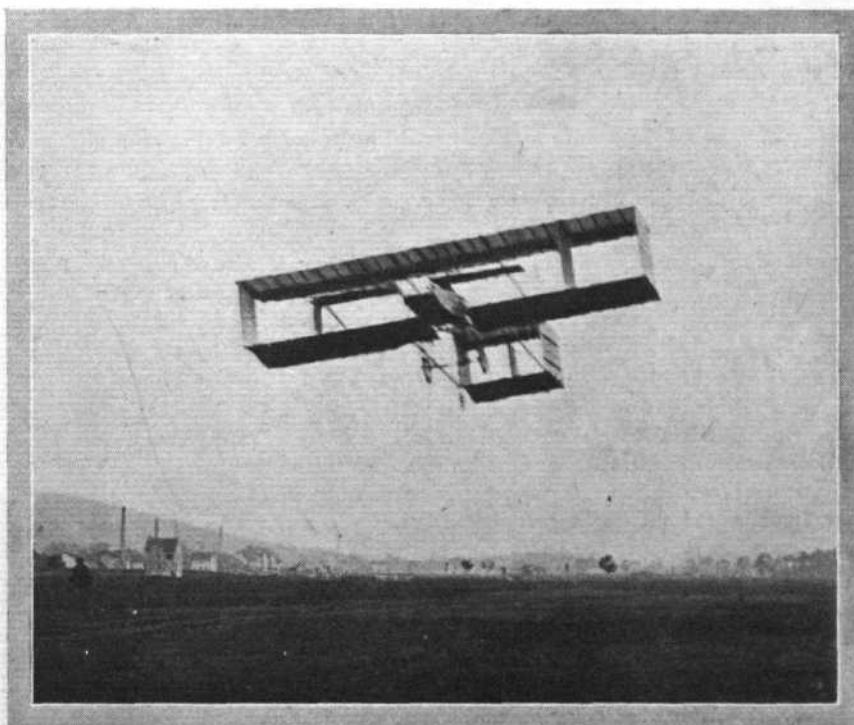
Captain Ferber at Belfort.

ON Sunday last, Captain Ferber made several flights on the Champ de Mars, on a Voisin biplane. The secret of the identity of Captain Ferber and the successful "De Rue" is now an open one. It will be remembered we referred some weeks ago to "De Rue" being the assumed name of a well-known aeronautical enthusiast.

Captain Ferber also made six very successful flights on Tuesday of this week at Belfort, although they were all fairly short. Satisfied with the running of his machine, he thereupon had it sent off to Vichy for the meeting.

Flight in Russia.

THE Aero Club of Odessa hopes shortly to have a Delagrange biplane of their own, and have already secured M. Van der Skruff, a pupil of Delagrange, to initiate them in the art of flying. During August the machine is to be delivered, and already they have their motor in hand for placing on the chassis. Capt. Grekow, on a machine constructed by M. Makovetski, was, last week, successful in making a flying jump of about 40 metres. On a second attempt, however, he came to grief, breaking up the machine badly.



On Sunday last "De Rue" made some successful flights at Belfort on his Voisin biplane. It will be remembered that some time ago we mentioned the fact that "De Rue" was really the assumed name for the moment of a prominent leader in aeronautics. That leader, we are now at liberty to mention, is the well-known Capt. Ferber. He is at the wheel of his machine in our photograph.

The Curtiss Aeroplane Damaged.

PILOTED at Hempstead, Long Island, by an amateur named Williams, the Curtiss aeroplane was damaged on Sunday last by falling from an altitude of 30 feet while out of control. The mishap was apparently due to the nervousness of the pilot, who was doubtless somewhat surprised at the height to which he had ascended. Unfortunately, Mr. Williams sustained a broken arm, and had to be removed to the hospital.

Neale Enters for Mile Flight Prize.

MR. J. C. NEALE, member of the Aero Club, has entered for the *Daily Mail* £1,000 prize for the first circular mile flight on a British-built flyer.

Records up to Date.

IN view of the progress which has been made during the past week, it is interesting to give a summary of the following more important duration flights, some being unofficial:—

			h.	m.	s.
1908, December 31st	Wilbur Wright	...	2	20	23
1909, July 19th	Henry Farman	...	1	23	0
1909, July 20th	Orville Wright (U.S.)	...	1	20	0
1909, July 15th	Paulhan	...	1	17	19
1908, September 12th	Orville Wright	...	1	15	20
1909, June 5th...	Latham	...	1	7	37
1909, July 18th	Sommer	...	1	4	0
1909, May 20th	Tissandier	...	1	2	0
1909, July 21st	Tissandier	...	0	56	32
1909, July 17th	Curtiss (U.S.)	...	0	52	30
1909, July 4th	Bleriot	...	0	50	8
1909, July 3rd	Bleriot	...	0	47	17
1909, July 13th	Bleriot	...	0	44	0

Vichy Meeting.

THE much-talked-of Vichy meeting, which officially opened on Sunday, July 18th, at 9 o'clock in the morning, and closes to-morrow, Sunday, July 25th, has not, up to the time of going to press, contributed any particularly startling records to the annals of flight. Of

the seven competitors entered, only two or three have so far made attempts. Zipfel was the first arrival, and Bleriot turned up on Monday. Tissandier, who attempted a trial flight with a passenger, broke a runner, and Zipfel also had trouble with his engine through a rough landing.

The results of the lots for starting order drawn by the Aero Club of France in connection with the official events, are as follows:—

Grand Prix de Vichy.—Delagrangé, 1; de Rue, 2; Paulhan, 3; Latham, 4; Zipfel, 5; Bleriot, 6; Tissandier, 7.

Prix du Passage de l'Allier.—Bleriot, 1; Paulhan, 2; Zipfel, 3; Delagrangé, 4; Tissandier, 5; de Rue, 6; Latham, 7.

Prix des Passagers.—Paulhan, 1; Zipfel, 2; Tissandier, 3; Delagrangé, 4; Bleriot, 5; Latham, 6; de Rue, 7.

Prix du Tour de Piste.—Zipfel, 1; Bleriot, 2; de Rue, 3; Delagrangé, 4; Tissandier, 5; Paulhan, 6; Latham, 7.

Rheims Meeting. Entries.

IF anything like the number of competitors turn up who have entered their names for the Rheims meeting, it should give a wonderful impetus to flight. There are at the present time sixteen definite names on the list, as follow: Curtiss, Delagrangé, Demanest, Esnault-Pelterie, Gobron, Guffroy, de Lambert, Latham, Ruchonnet, Santos Dumont, Sommer, Tissandier, Bleriot, Rougier, Bunau-Varillo, and De Rue (Capt. Ferber). Actually this number includes eighteen machines, for M. Bleriot has entered a couple of monoplanes. Besides these names it is only reasonable to reckon on the entries of Henry Farman and Paulhan, so that it may be said that the minimum list will have eighteen names on it; and, while reputations of mushroom growth continue to be the order of the day, the number of competitors who might enter before the meeting takes place renders the probable list a matter of great uncertainty. It is much to be hoped that the meeting will be thoroughly representative, because, when it is borne in mind how much

on a par are the performances of the present entrants, it should be of the very greatest interest to watch them in actual competition.

The first closing date for entries was July 22nd.

Proposed Spa Meeting.

AN influential committee has been formed at Spa with the object of organising an international flight contest for prizes of 125,000 fr. to take place at the end of August.

Aero Club of France at Juvisy.

THE Aero Club of France has decided to organise a meeting to take place one Sunday in October at the Port Aviation. The Société of Encouragement will give 5,000 fr. in prizes.

An Aviation Meeting at Dunkirk.

PROGRESS in France in practical flying is causing an enthusiastic feeling to spread in all directions, the latest



Photo by Dr. W. J. S. Lockyer.

White Lodge, Richmond Park, on June 29th, 1908, seen from the balloon "Corona" when at a height of 2,200 ft.

proposition being for the creation of an aerodrome at Dunkirk, to be inaugurated in August by an aviation meeting. It is stated that the necessary money has been got together for the purpose, and that shortly a further announcement will be made of the projected meeting, M. Paulhan, the successful young aviator, having promised definitely to take part in practical displays.

Old Students' Prize.

THE Ligue Nationale Aérienne has received from the Société des Anciens Elèves a prize of 2,000 francs to be awarded to the first of the old students who shall have won one of the L.N. prizes before January 1st, 1911.

How to Avoid Injury in Flight.

M. BLERIOT—who is at the moment suffering from a burned foot, but still sanguine as to his chances on the cross-Channel flight—has made public a little practical tip which explains how he has so frequently had mishaps without personal injury. At one time, it will be remembered, M. Bleriot's early achievements in flight were

mainly characterised by more or less disastrous terminations, but on every occasion the aviator himself escaped practically without a scratch. M. Bleriot goes to work on the theory that it is impossible to save both the machine and one's self, and further that if the pilot keeps a cool head he need never be injured. M. Bleriot's own plan is to throw himself upon one of the wings of the machine just before the crash, and although this breaks the wing, it has proved equally successful in breaking his fall.

The Cost of Flying.

M. BLERIOT estimates that in nine years he has spent about £20,000 in experiments with aeroplanes. Trained at the Central Engineering School in Paris, M. Bleriot has always kept up technical work as a hobby, although it has not been necessary for him to pursue it as a profession. His most notable work outside flight has been the development of the world-renowned acetylene headlight for motor cars which bears his name.



AIRSHIP NEWS.

"Ville de Nancy's" Long Voyage.

THE first extended trip of the "Ville de Nancy" from Paris to Nancy was not without incident. First of all, a descent was necessary on account of a damaged propeller, and the airship came down in the grounds of the Chateau des Tournelles, where it was guarded through the night by a detachment of men despatched in all haste from Paris. No mishap attended its open-air repose, and a successful re-start was made; but the buoyancy was now found to be insufficient, partly on account of leakage, and partly because of the enormous quantity of water deposited on the envelope by rain. M. Surcouf therefore gave way to a lighter pilot, and the journey was continued as far as Beauval, near Meaux, where another forced descent was necessary owing to the breaking of a petrol-pipe. This time a garage was available, and the "Ville de Nancy" was temporarily housed alongside another airship, the "Colonel Renard." Repairs were soon completed and a restart made, Nancy being at last sighted after a detour *via* Commercy, which was made in order to avoid a storm cloud. A successful landing was accomplished in the grounds of the exhibition. During the afternoon of the last stage of the journey the airship covered 175 miles in 5½ hours.

French and German Airships. Proposed Meeting.

THE pilots of the French airship "Ville de Nancy" paid a visit this week, by permission of the German authorities, to the Metz airship shed, and subsequently witnessed an ascent of "Zeppelin I." M. Kapferer then suggested that the "Zeppelin" and the "Ville de Nancy" should make simultaneous ascents and effect a meeting over the frontier; a proposal which was received with favour by the German officers.

Some of the German newspapers, it seems, are rather upset at the liberty which has been accorded the Frenchmen during their visit.

Schutte Airship.

MESSRS. LANZ, of Mannheim, have been commissioned to build the first airship designed by Professor

Schutte, of the Danzig Technical School. It is to be an airship of the rigid type on the lines of the Zeppelin vessel, but with a wood framework instead of aluminium. Goldbeater's skin is to be employed for the lining of the gas-vessel. The principal point advanced in support of the wood frame is that it will enable wireless telegraphy to be installed without danger. The shed is already commenced for its reception, the dimensions of the shed being 443 ft. long and 200 ft. wide. The capacity of the gas-vessel is to be 19,000 cu. metres, and the engines will, it is reported, develop a total of 500-h.p.

"Zeppelin I" in the Air.

PROFITING by the calm weather on Wednesday of last week, July 14th, the authorities brought out "Zeppelin I" for an airing of three-quarters of an hour's duration. The ascent was not made until eight o'clock in the evening, and after the descent at 8.45, the airship again rose in charge of Captain George and made off on a secret voyage.

"Col. Renard" Airship.

THE new French dirigible, "Col. Renard," made its first ascent on Wednesday of last week, July 14th, at Meaux.

"Daily Mail" Airship Shed.

PRELIMINARY work on the ground at Wormwood Scrubbs, where the *Daily Mail* shed is to be erected, was commenced on Thursday of last week, July 15th.

Italian Airship Shed.

AT Spezzia a shed is being erected for dirigibles in connection with the fleet, and is to receive the airship at present stationed at Bracciano.

Rettig Airship.

ANOTHER airship is contemplated in Germany by Herr Rettig, and will, it is reported, be of the semi-rigid type, and be made of wood, probably American pine, instead of metal, wherever it is possible.

CORRESPONDENCE.

* * The name and address of the writer (not necessarily for publication) MUST in all cases accompany letters intended for insertion, or containing queries.

ANOTHER PROPELLER CHALLENGE.

To the Editor of FLIGHT.

SIR,—As the above now seems to be à la mode, and as Messrs. Handley Page advertise a propeller about which they have a good deal to say, I hereby challenge them to a competitive trial of efficiency against the "Hollands" propeller, for which I, on my side, claim a higher efficiency than that of any other on the market.

Yours faithfully,

SIDNEY H. HOLLANDS.

CROSS-CHANNEL BALLOONING (M. P. SOUVESTRE'S TABLE).

To the Editor of FLIGHT.

SIR,—With reference to the interesting list you publish on page 432 of cross-Channel balloon voyages, may I point out one omission? The list does not include the second long voyage of the "Mammoth" balloon in 1908, when, with A. E. Gaudron, Capt. E. M. Maitland, and myself, it ascended from London on the morning of November 18th, descending on the evening of the following day at *Matki Derevni, Russia*, a distance, as the crow flies, of 1,117 miles, in 31½ hours. That was the longest balloon voyage ever made from England, and it is second only to the world's record of 1,193 miles held by the Comte de la Vaulx.

I think it is desirable also to recall that in the journey of the previous year, when the same balloon travelled from London to Lake Wener, Sweden, we set up a world's record for over-sea ballooning, crossing the North Sea at coast points 360 miles apart. We passed over Yarmouth to the north-east, and crossed the European coast at the extreme north of Denmark. Our over-sea record still stands, as does also our distance from England record. In these days of aeronautical enthusiasm, however, both are, let us hope, doomed to speedy eclipse.

Yours faithfully,

CHARLES C. TURNER.

[Translated.]

To the Editor of FLIGHT.

SIR,—May I be permitted to make a correction as to the nationality of the balloon "Montaner" included in M. Souvestre's table of Channel crossings on page 432 of your last issue. Both occupants of that balloon, Messrs. Kindelan and de la Horga, are Spaniards, and the nationality should have been given as Spanish in the reference.

Yours faithfully,

MIGUEL VILLANNEVA.

To the Editor of FLIGHT.

SIR,—Permit me to point out to your notice a slight error in "Notable Channel Crossings by Balloon" from England to the Continent in 1907, October. "Lake Wener, Switzerland," should read "Sweden."

May I also point out two more notable crossings which I have done. In 1901, on the Coronation Day of His Majesty King Edward, I ascended from Beckenham and descended at Calais. I had with me on that occasion as passenger Dr. Barton. Also my crossing of last year on my journey to Russia, which, I think, is also noteworthy.

Yours faithfully,

A. E. GAUDRON.

CHEAP HYDROGEN—AN INTERNATIONAL COMPANY.

To the Editor of FLIGHT.

SIR,—With reference to the announcement under the above title which appears in your issue of this date, permit me to observe that after devoting upwards of seven years to the development and elaboration of a hydrogen process, it is rather exasperating to find a German flotation which professes to have patents and methods for this subject, the details of which I find identical with my own work.

I would like to point out that so far back as 1904 I exhibited my plant at St. Louis, and was awarded the Silver Medal for same. The same year I erected a small plant at St. Petersburg for the Russian Government, and this was followed by an order for a 200 metre (7,000 ft.) per hour plant, which I have since supplied.

The Prussian Luftschiffer Bataillon of Tegel, near Berlin, so long ago as the year 1906, were fully informed of my plant, and Major Gross received drawings and details which I presume constitute

publication (one cannot patent everything everywhere like a company). Since that time I have supplied my plants to Vienna, Paris, and London; and am now erecting others.

This German firm I notice are constructing an experimental plant at Frankfurt, and only "anticipate" being able to produce hydrogen of 99 per cent. purity, whereas I have executed contracts based on such a figure, and the work has been duly accepted and paid for.

After the time and labour I have devoted to my subject, it is not my intention to submit to be ousted at the time when one's reward may be reasonably expected, and I shall certainly consider myself free to accept contracts for any part of the world.

I am happy to know that notwithstanding the efforts of this company in this country and their offers to almost give their plant away, it has been held by persons in high position that the plant for British aeronautics shall be of British origin.

Yours obediently,

HOWARD LANE.

Birmingham.



Model Competition at the Stadium.

THE Aeroplane Club is considering the prospects of holding a competition for man-lifting gliders and model flying machines at the Stadium of the White City, and invites all those who would be willing to take part to send in their names to the Secretary at the Savoy Hotel, in order that an opinion may be formed as to whether the meeting would be likely to justify the expense.

From Ice to Air.

SIR PHILIP BROCKLEHURST, Bart., who has just returned from the Antarctic regions with the Shackleton expedition, last week made a balloon ascent with the Hon. C. S. Rolls, in which a trip from London to Pitsea, near Maldon, in Essex, was accomplished. This was Sir Philip Brocklehurst's first experience of ballooning.



Aeronautical Patents Published.

Applied for in 1908.

Published July 15th, 1909.

- 20,785. L. BLERIOT. Aeroplanes and the like.
- 24,202. F. A. DON SIMONI. Dirigible aerial machines.

Published July 22nd, 1909.

- 589. J. AND C. J. TOZER AND OTHERS. Airships.
- 27,997. H. NEUNER. Anchor for airships.

Applied for in 1909.

Published July 15th, 1909.

- 4,348. J. T. RICE. Airships.

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